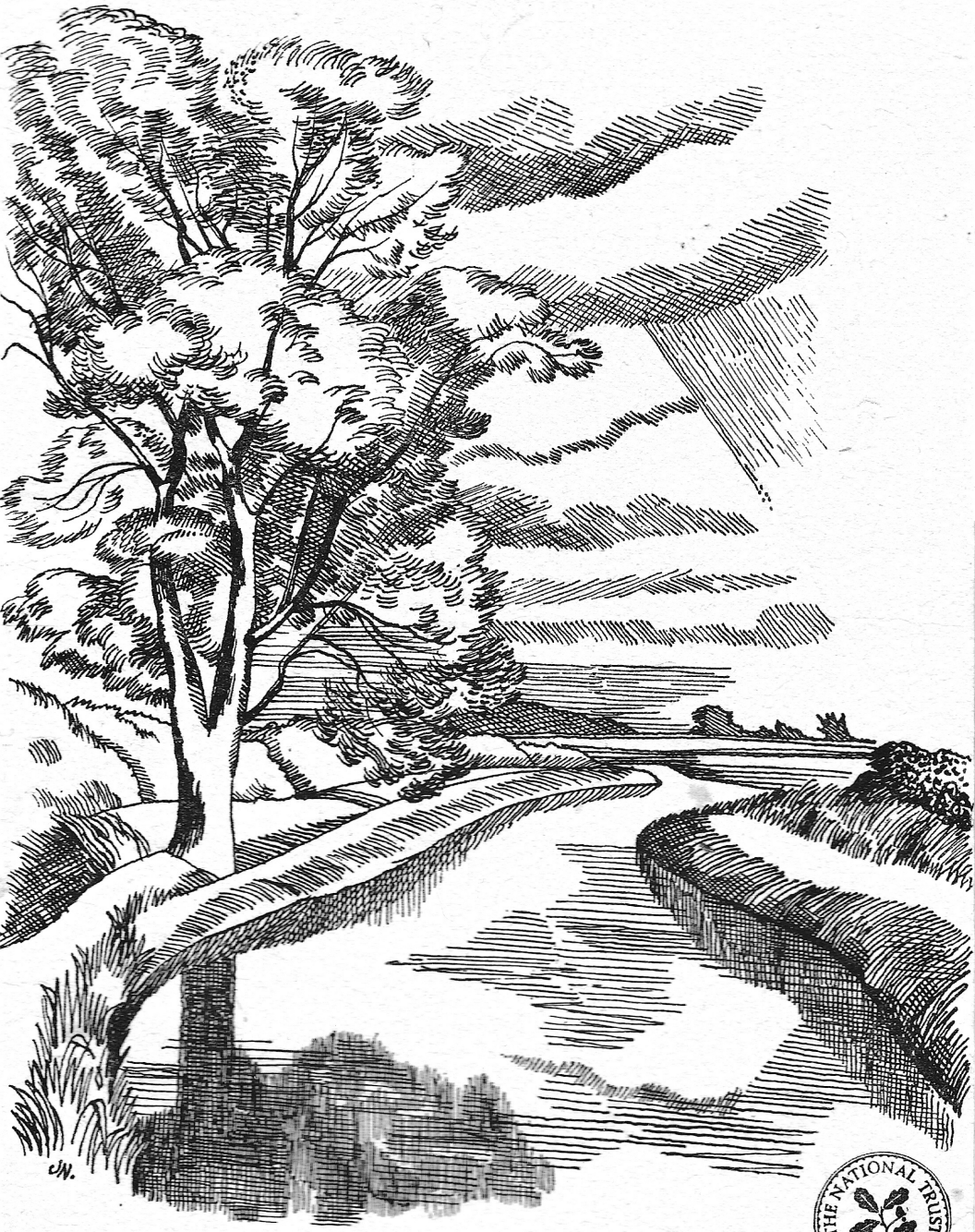
WICKEN SEDGE FEN

A TOPOGRAPHICAL AND BOTANICAL GUIDE

By F. J. BINGLEY & S. M. WALTERS Illustrated by JOHN NASH, RA



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Guide to Wicken Fen No. 1

Leaflet guides giving lists of plants and animals at Wicken are in preparation. Enquire at the Keeper's cottage.

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Buckthorn

Alder Buckthorn

Guelder Rose

Wicken Sedge Fen

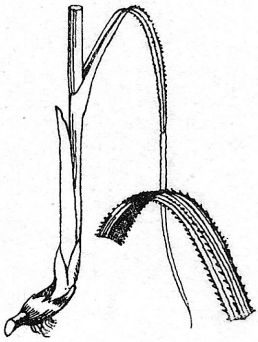
INTRODUCTION

This guide is intended for those making their first visit to the Fen, and is in the form of a suggested itinerary, beginning and ending at the footbridge by the end of Wicken Lode. (See [A] on map.)

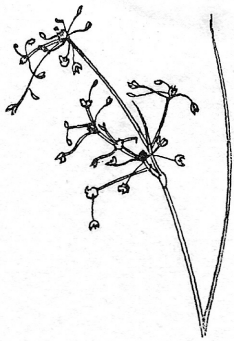
Wicken Fen, the property of the National Trust, is a Nature Reserve, consisting of three main areas: Sedge Fen, Adventurers' Fen and St Edmund's Fen. The itinerary is confined to the Sedge Fen. From the map, it will be seen that the area is bounded on the south-east by Wicken Lode, and on the west by Drainer's Dyke; a path follows both these water courses. Spinney Bank forms the northern boundary, and the north-east margin is approximately the line of the path through the brickpits, past the windmill to the footbridge where the Fen is normally entered. Access is provided by two parallel droves running the length of the Fen, crossed at right angles by three other droves.

The present-day vegetation of Wicken Fen is not natural fenland vegetation. For centuries the owners of the narrow strips, into which Wicken Fen was divided, had mown sedge for thatching and litter for animal bedding, or conducted other operations such as peat-digging. Some strips were mown once every four years, others more frequently; this irregular mowing produced a mosaic of vegetation types characterised by varying proportions of reed, sedge and grass. Mowing became unprofitable by the end of the last century, and this, combined with lowered water levels caused by the drainage of surrounding land, provided ideal conditions for the growth of Buckthorn (*Rhamnus*

Reed



Sedge



Blunt-flowered Rush

catharticus), Alder Buckthorn (*Frangula alnus*), Guelder Rose (*Viburnum opulus*) and other shrubs, which form the dense scrub, or 'carr', now covering much of the Fen. Present management is directed towards removing the bushes and raising the water level, in order to re-establish productive sedge fields, in a manner which will provide the greatest variety of habitats and hence a rich flora and fauna.

WICKEN LODE

The Fen is entered over the footbridge beside the end of Wicken Lode [A]. Lodes are ancient artificial waterways, originally dug to carry upland water across the Fen to the River Cam; they also served for barge traffic to the fen villages. The end of Wicken Lode must have been a sort of miniature inland port years ago. It is in use once more; sedge and reed for thatching are again being cut on the Fen, shipped along the Lode and stacked at the end as in former times.

PEAT FORMATION AND SUCCESSION

After crossing the footbridge, turn immediately right towards the windmill [C]. On the way a peat cutting [B] can be visited by going a short distance down a narrow path on the left, about ten yards from the bridge. For centuries, peat was cut for fuel on the fens. Peat is the partially decayed remains of plants which grew on the fens before they were drained. In shallow, open water, the remains of the marsh and water plants accumulate rapidly because there is not enough dissolved oxygen in the water to allow complete decay to take place. The peat thus formed gradually displaces the water, and at the same time aquatic plants are replaced by reeds. In the same way, it is probable that eventually the reed beds are succeeded by sedge fields. The bushes

Meadowsweet

Hemp Agrimony

Meadow Rue

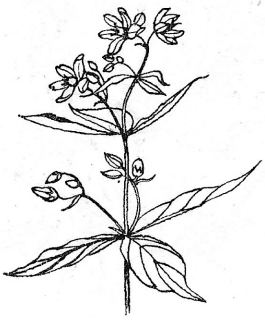
which invaded the sedge have been cleared from the area between the peat cutting and the windmill and the resulting vegetation is of a type known as 'mixed fen'. Here are to be seen the majority of the common species of the Fen, including Reed (*Phragmites communis*), Sedge (*Cladium mariscus*), Blunt-flowered Rush (*Juncus subnodulosus*), Meadowsweet (*Filipendula ulmaria*), Hemp Agrimony (*Eupatorium cannabinum*), Meadow Rue (*Thalictrum flavum*), Marsh Thistle (*Cirsium palustre*), Yellow Loosestrife (*Lysimachia vulgaris*) and many other marsh plants. In June and July the handsome blue flowers of the Marsh Pea (*Lathyrus palustris*) may be seen by the paths near the windmill.

THE WINDMILL [C]

This has been moved from Adventurers' Fen, where it had become derelict; the woodwork has been restored but the ironwork is original. This type of 'mill' was designed to pump water up from the field ditches into main drainage dykes in order to drain the fen farmland. In the eighteenth century, before the days of steam pumping stations, there were hundreds of windmills in the fenland, but they have now been replaced by diesel engines or electrical pumping stations.

THE NEW DROVES

Gardiner's Drove, which starts at the windmill, was cut in the 1920's, as were Thomson's, Christy's and Verrall's Droves. They are recent compared with Sedge Fen Drove which is at least 300 years old. The sides are cut annually and the centre path several times a year. By keeping down the tall growth, the smaller species get a chance, and thus the droves and paths are usually richer in species than the main areas of the fen.



Yellow Loosestrife

Marsh Pea

Great Hairy Willow-herb

Amongst the reeds at the sides of the droves notice Great Hairy Willowherb (*Epilobium hirsutum*), Common Valerian (*Valeriana officinalis*) and the two white umbellifers, Angelica (*Angelica sylvestris*) and Milk Parsley (*Peucedanum palustre*), food plant of the Swallowtail Butterfly which once occurred at Wicken. The Blunt-flowered Rush is particularly common in this habitat.

Follow Gardiner's Drove, then turn left down Thomson's Drove to the Lode, and follow the Lode bank to the right.

VEGETATION IN THE LODE

If the water is clear, it should be possible to see Stonewort (*Chara* spp.) growing on the bottom, with several kinds of Pondweed (*Potamogeton* spp.), and here and there, patches of the submerged leaves of Water Dropwort (*Oenanthe fluviatilis*). The trailing, strap-shaped leaves of Branched Bur-reed (*Sparganium erectum*) may be seen on the surface, and by the bank there are occasional plants of Arrowhead (*Sagittaria sagittifolia*) and Water Plantain (*Alisma plantago-aquatica*) amongst the Water Lilies (*Nymphaea alba* and *Nuphar lutea*). In places the dark green stems of the true Bulrush (*Schoenoplectus lacustris*) grow three or four feet out of the water. This is the plant from which rush matting is made. Oat-grass (*Arrhenatherum elatius*) and Meadow-sweet are very much in evidence on the lodeside path.

ADVENTURERS' FEN

Stand opposite Monk's Lode and look south across Wicken Lode [D]. Adventurers' Fen can be seen in the foreground. In the distance is the line of chalk uplands on which the villages of Burwell and Swaffham Prior are situated. Note that the level of the whole of the

Common Valerian

Angelica

Milk Parsley

fenlands to the south is six to eight feet below the Sedge Fen. This represents the shrinkage and loss of peat after drainage and arable cultivation. Just across Wicken Lode can be seen old bog oaks taken out of the peat when Adventurers' Fen was reclaimed for agriculture during the 1939–45 war. The main part of this Fen was returned to the Reserve in 1952, and the mere was constructed in 1954–55.

SEDGE FIELDS

Continue along the Lode bank, noting the splendid unpollarded specimen of White Willow (*Salix alba*) by the path and the fine Silver Birch (*Betula pendula*). Then look north into the Sedge Fen along Christy's Drove [E]. On both sides are open sedge fields, recently extended by bush clearing. Good sedge crops can now be taken from these fields every third or fourth year. In years gone by, the whole of the Sedge Fen must have been covered by sedge in this condition maintained by the effect of regular cutting.

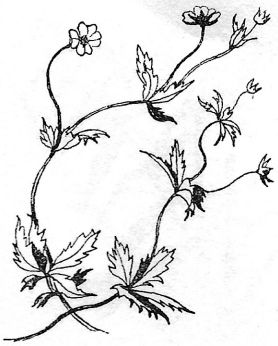
THE SOUTH-WEST CORNER AND DRAINER'S DYKE

The Tower Hide [F] stands in a small clearing by the side of the path. Both sedge and reed from the Fen have been used in its construction. It affords an uninterrupted view over the mere, especially valuable for its rich bird-life. Note just beyond the Hide the small triangle of old uncut scrub [G], at the corner where the path turns north along the side of Drainer's Dyke. This triangle was first surveyed by Professor Godwin in 1929 and the detailed changes in the vegetation over more than thirty years are therefore known.

Taking the path beside Drainer's Dyke, which was last cleared in

True Bulrush

Bog Myrtle



Tormentil

1962, the end of Gardiner's Drove is passed on the right; then Cross Dyke enters from Verrall's Fen on the left and a couple of hundred yards farther on is the end of Sedge Fen Drove. Here, on the north side, is a patch of Bog Myrtle (*Myrica gale*).

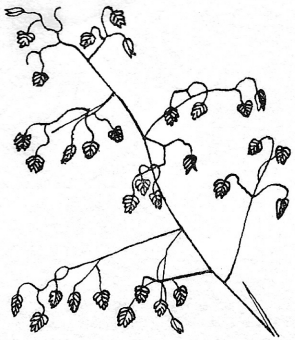
THE EXPERIMENTAL PLOTS AND BIRCH WOODLAND

At this point the visitor can either turn right and go along Sedge Fen Drove, or go on another 200 yards to the five experimental plots [H] laid out by Professor Godwin in 1927 to study the effects of mowing sedge at various intervals. The first enclosure is mown annually, the second every two years and so on. The fifth and last is kept as a control and has never been mown. Frequent cutting has eliminated the sedge because it is an evergreen and has so much of its 'capital' in the leaves.

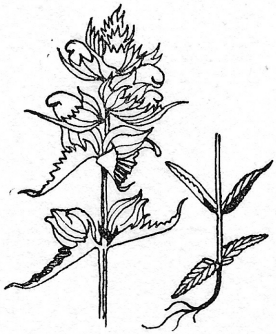
A path leads back to Sedge Fen Drove through birch woodland [J] developed from trees originally planted in this area by the owner. Note that Birch regenerates freely, but Alder (*Alnus glutinosa*), also planted here, seems quite unable to regenerate, the seedlings dying at an early stage. The reason for this is not understood.

SEDGE FEN DROVE

Sedge Fen Drove is at least 300 years old, and used to provide access for the owners of the strips of fen. The boundaries of these strips are shown by numbered metal posts. The Drove has always been regularly mown and carries the richest flora of any area of the Fen. The following should be noted: Marsh Orchid (*Dactylorchis incarnata*), Lesser Spearwort (*Ranunculus flammula*), Tormentil (*Potentilla erecta*), Quaking Grass (*Briza media*), Yellow Rattle (*Rhinanthus minor*) and



Quaking Grass



Yellow Rattle

Comfrey

Meadow Thistle (*Cirsium dissectum*). There are also many kinds of small sedges and rushes. Comfrey (*Symphytum officinale*) is plentiful, as elsewhere on the Fen.

FEN CARR

On either side of Sedge Fen Drove there is almost continuous carr of various ages. It is interesting to push into this at different places along the Drove, and see the various stages of carr development. Carr is chiefly composed of two closely related species: Buckthorn (leaf margin toothed) and Alder Buckthorn (leaf margin entire), together with Guelder Rose, and occasionally Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Privet (*Ligustrum vulgare*) and Sallow (*Salix cinerea*).

At first, Alder Buckthorn forms an impenetrable thicket which shades out and kills the sedge and most of the reed. In time, the Alder Buckthorn bushes die, and are replaced by Buckthorn, and a new ground flora develops of shade-tolerant plants: Stinging Nettle (*Urtica dioica*), Marsh Fern (*Thelypteris palustris*), Great Bindweed (*Calystegia sepium*) and Dewberry (*Rubus caesius*). A good piece of mature Buckthorn carr is to be found behind the old hut [K], half-way along Sedge Fen Drove.

THE BRICKPITS

A right turn at the far end of Sedge Fen Drove leads to the brickpits [L]. These pits were originally dug through the thin peat at the Fen margin down into the Gault Clay of the 'peninsula' on which Wicken Village stands. There are half a dozen or more of these steep-sided pools and they are well worth exploring, for they provide refuges for many interesting plants and animals. Floating in the water among the

Great Bindweed

Dewberry

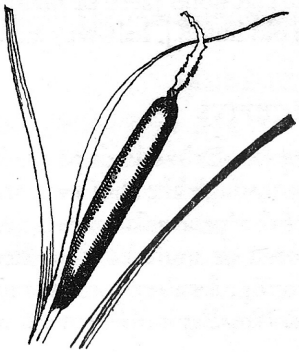
Bladderwort

Water Lilies and the Water Milfoil (*Myriophyllum verticillatum*) may be seen the delicate Bladderwort (*Utricularia vulgaris*) whose submerged branches bear small bladders which trap and digest tiny water creatures. Great Reedmace (*Typha latifolia*) is plentiful at the water's edge but note that, in places, the sides of the pits are fringed by the uncommon Lesser Reedmace (*Typha angustifolia*).

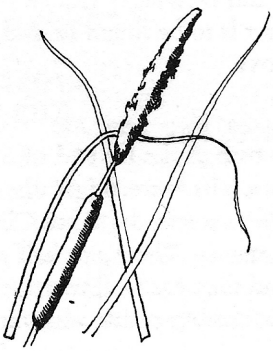
FEN WOODLAND

Half-way along the brickpit path, a detour can be made to the right, passing through old carr [M], where some Oaks have established themselves, and a woodland is developing. If the Fen were left entirely alone, we believe that Oak–Ash woodland would eventually cover most of it, though Birch might spread and dominate in some areas. Note the Marsh Fern growing in the shade.

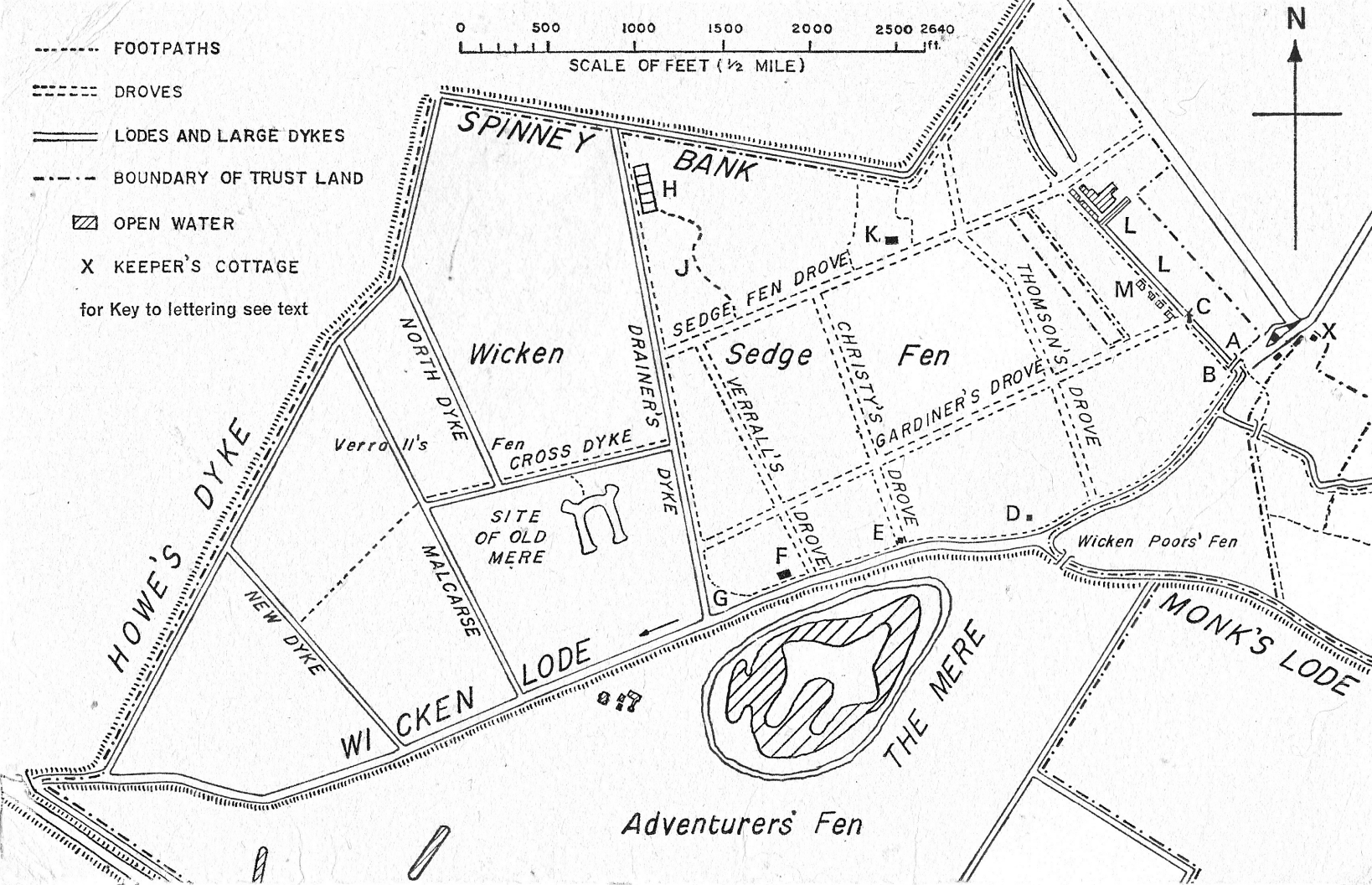
On rejoining the brickpit path, continue past the windmill towards the footbridge, so completing the tour of the Fen.



Great Reedmace



Lesser Reedmace


FOOTPATHS
DROVES
LODES AND LARGE DYKES
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SEDGE FEN DROVE
THOMSON'S DROVE
GARDINER'S DROVE
CHRISTY'S DROVE
VERRALL'S DROVE
DRAINER'S DYKE
NORTH DYKE
Wicken
Sedge
Fen
Verrall's
Fen
CROSS DYKE
SITE OF OLD MERE
MALCARSE DYKE
NEW DYKE
HOWE'S DYKE
WICKEN LODE
THE MERE
MONK'S LODE
D
E
F
G
Wicken Poors' Fen
Adventurers' Fen